

**I. AMENDMENTS TO THE CLAIMS:**

Please cancel claim 18 without prejudice.

Kindly amend claims 1, 4-6 and 17, and add new claim 19 as follows.

The present listing of claims replaces all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1. (Currently amended) A method for the production of heterologous proteinaceous substances in plant material, comprising the steps of:

culturing plant material in a culture medium, wherein the plant material is transformed protonema tissue that produces heterologous proteinaceous substances; and

obtaining the heterologous proteinaceous substances from the culture medium without disrupting producing tissues or cells.

2. (Previously presented) The method according to claim 1, characterized in that proteinaceous substances released into the culture medium are biologically active.

3. (Previously presented) The method according to claim 1, characterized in that the culture medium is free from sugars, vitamins and phytohormones.

4. (Currently amended) The method according to claim 1, characterized in that the tissue is selected from the group consisting of moss tissue~~mosses~~ and liverwort tissue~~liverworts~~.

5. (Currently amended) The method according to claim 1, characterized in that the tissue is selected from moss tissue~~mosses~~ of the group consisting of *Physcomitrella*, *Funaria*, *Sphagnum* and *Ceratodon*.

6. (Currently amended) The method according to claim 1, characterized in that the tissue is selected from liverwort tissue~~liverworts~~ of the group consisting of *Marchantia* and *Sphaerocarpos*.

7. (Canceled)

8. (Canceled)

9. (Canceled)

10. (Canceled)

11. (Canceled)

12. (Canceled)

13. (Canceled)

14. (Canceled)

15. (Canceled)

16. (Canceled)

17. (Currently amended) A method for the production of heterologous proteinaceous substances in plant material, comprising the steps of:

culturing plant material in a culture medium, wherein the plant material is transformed protonema tissue that produces heterologous proteinaceous substances, wherein the protonema tissue is selected from the group consisting of *Physcomitrella*; and

obtaining the heterologous proteinaceous substances from the culture medium without disrupting producing tissues or cells.

18. (Canceled)

19. (NEW) A method for the production of heterologous proteinaceous substances in plant material, comprising the steps of:

culturing plant material in a culture medium, wherein the plant material is transformed protonema tissue that produces heterologous proteinaceous substances, wherein the protonema tissue is *Physcomitrella patens*; and

obtaining the heterologous proteinaceous substances from the culture medium without disrupting producing tissues or cells.